To the Kings Most Excellent Majesty,
And the
Honorable Houses of Parlament.

A

MEDITERRANEAN

Passage by water,

FROM

LONDON to BRISTOL, &c.

And from

LYNNE to YARMOUTH,

And so consequently to the City of YORK:

for the great Advancement of

TRADE & TRAFFIQUE.

By *Francis Mathew*, Esquire.

LONDON,
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Hollander 190*

TO THE

Kings Most Excellent MAJESTY

CHARLES II.

By the Grace of GOD, King of *England*, *Scotland*, *France* and *Ireland*; Defender of the Faith, &c.

And the Honorable Houses of PARLAMENT.

May it please Your most Gracious Majesty,

OBserving, *by traversing this Island, that divers Rivers within the same may be moulded into such Form, as will admit of Vessels of* thirty Tun *burden; or upwards, to sail in, unto the great Relief of divers Countryes in this Island, by means of the same, at less then half the Rates now paid for Land carriage, and near with as speedy return, going both by day and night; and to the Reward of Your Most Gracious Majesty, if the same were once made so Navigable; and considering at how easy a Charge*

(as I humbly conceive) the ſame may be brought to paſs, in compariſon of the Advantages which may be reap'd thereby: and the great encouragements given my endeavours of bringing this deſign to paſs, by divers Mayor Towns and Corporations of this Land, that conceive a Reliſh of the Sweetneſs through the great Opinion onely they have of it, upon ſerious Diſcourſe had with me concerning the ſame; a Catalogue whereof hath been preſented to your Majeſty: as by the like means may be had from many more ſuch Towns which have the like Invitations to the ſame: I humbly preſume, upon this ſtock, to become Importunate to Your moſt Excellent and Royal Majeſty for the enterprize of and ready effecting this Work, being an Undertaking ſo Heroick, that 'tis beyond the Level of any others to attempt: and, ſeeing that the longer it is delayed, If your Majeſty ſhall underſtand that the ſame may produce a Profit (which I endeavour by this ſmall Treatiſe to evince) the longer is the Profit loſt. And after my Travels, Induſtry and Studies in and about this great Improvement, and with ſo great an Expence of my Eſtate in Your Majeſties Royal Fathers Service, by the Advance of a Troop of Horſe, and the accommodation of Three Sons, at my own proper Charge in the ſame, and otherwiſe; beſides the unhappy Conſequence of Impriſonment, Plunder and Sequeſtration in the ſame epidemical Misfortunes which all Your Loyal Subjects accompanied Your Majeſty in, and alſo a great Misfortune I ſuſtained by Fire: all which occaſioned my Wife and ſelf, during thoſe times, to live at a great diſtance from each other, and wholly to rely on our Friends, in ſo much that at preſent, I am neither able to compoſe my debts, nor preſerve my lawful Rights againſt undue Encombrances: If Your Majeſty ſhall be pleaſed to promote this Work, and bring it to effect within my remnant of daies, by Your Majeſties gracious favour, without other Expence then what will carry along with it an advantage to Your Majeſty; Your Majeſty may relieve

me

me with what may ſeem ſo juſt, as a Recompence due unto me for my Endeavours about the ſame, and may give me Leiſure (after the diſtractions I now ſuſtain) with great alacrity for the diſcharge of ſo good an Office (as the Obteining of Your Majeſty to effect a work of ſo great a Benefit to my Country) to enjoy the fruits of my Labours, and expreſs my ſelf

Your MAJESTIES

Moſt obſequious, faithful,

and moſt obedient

Subject and Servant

Francis Mathew.

The Opening of RIVERS FOR Navigation.

THough there be many more Obſtructions and Difficulties to be met with, in the making of the Riverrs within this Iſland Navigable, then are familiarly in the *Flat Netherlands of Holland*, and the reſt of the United Provinces of *Belgium*: whoſe benefit may ſeem to allure us to the like *Induſtry*, nevertheleſs *Englands* fair Valleyes, and rich Inlets, through which many noble Rivers inſinuate themſeves, might, with the Imitation of our ingenious Neighbours, be made in many places docible of Navigation, to the ineſtimable comfort, eaſe and benefit of the Subject: wherefore, in all Humility, I make this my moſt Humble Addreſs unto Your Moſt Renowned and Emperial Majeſty: And ſhew, That yet ſuch an Enterprize in ſeveral places of this Iſland may with advantage be effected by divers and ſundry wayes, of no leſs Importance to the whole Nation,

Firſt, Of a Wonderful Improvement to much Trade, and great Relief to the Land, and moſt remarkably to be perceived, by the ſupply of many places with the great Benefit of Coal (which without

out this means cannot be had) to the imployment of Your Majesties Subjects in Mining, and otherwise about the same, and also the advance of many from Low degree, becoming Merchants in the same, (by that sure Trade of taking in their Commodities at easy rates; ready returnes, and certain gaines, the Essentials of all Improvements therein) they thereby becoming ranked in the highest Capacities to serve their King and Countrey; an Excellent President whereof is to be seen in such of the Merchants of *Newcastle*, who have traded in that Commodity alone, at much greater hazard, delay and charge than in such *Mediterranean* Rivers (as is by this designed) becoming Navigable, may be effectually brought to pass.

Secondly, To the great Ease of the Subject, for the Rivers so designed, being Navigable thereby, with lesser Charge, with fewer hands, greater Transportations from place to place and in shorter time may be made: Armies in time of Warre, in their primest Strength, by such Transport, fit for ready Service (which the hazardous Condition of a Souldiers Calling is dayly to expect) may safely, silently and without harrass of the Country in their goods and Carriages, be thus conveyed.

Thirdly, Hereby a great Increase of His Majesties Revenue may be established upon the *Crown* from such a Publick Work, which the happy experience His Majesty hath had of the *New-Castle* Trade of *Coal*, were there no other Commodity then Coal to be transported in such Rivers, may invite him to, and which may be setled with so great Chearfulness of the Subject, as that a great abatement of the Rates of the Commodities traffique'd in may be had thereby; notwithstanding such imposition for His Majesty upon the same, to the perpetual establishment of the Impost, as a just return to him for so Publique a good Work; to continue to him as one Diadem of his Crown for ever, The Publique proportionably enjoying the benefit thereof accordingly: By which mutual returnes unto each other, His Majsty and Subjects are naturally interwoven in the Preservation of each other: According to the Maxim, *That by what the People, by the same the Government must grow*: & vice versa: each of them in their several wayes and powers being to support each other.

Fourthly,

Fourthly, This Iſland will hereby be the better fortified, be- 359
cauſe of the Increaſe of Watermen, the Walls thereof.

Fiftly, By countenancing this Work, Horſe will be preſerved: for war, for Merchandize, or other purpoſes, as Occaſion may offer, and the Wiſdom of Your Majeſty may think beſt to approve of.

Sixtly, And what is well worthy of Obſerving, the High-wayes hereby will be much preſerved, and become a very acceptable work to the Country, which now notwithſtanding their great coſt, is now a grievous Toil as well to man as beaſt, being now ſo unneceſſarily plowed up by Waggons of Prodigious Burthens, which in this Iſland are dayly travelling: And alſo to the inſenſible relief of this Iſland, by many other wayes and means to be diſcovered by us, as they ſhall be occaſionally offered to us to underſtand.

And, indeed, the making of theſe Rivers Navigable, may be brought to paſs, well nigh, at as eaſy a coſt and charge as the *Fenning* works have been, though ſuch great Works ſeemingly threaten great difficulties, which may not be foreſeen or known till felt: Yet, *re vera*, the benefits are ſo innumerable and conſiderable which invites unto this Work in many places of this Iſland, as, at the very firſt ſight, will ſhew ſuch hazards to be too inconſiderable to put a *Baffle*, or occaſion ſo Noble a Work, ſo feaſable, and to ſo good purpoſes, and high ends, (where they are well ballanced, and managed by well pondered reſolutions) to be laid aſide: there being in this Iſland, Sufficiency of all Sorts of Proviſions for undertaking of the ſame, which Prince or People, either are, or may be, unqueſtionably furniſhed with, being appointed of Council, in all wayes requiſite for ſuch an enterpriſe of the choiceſt ſtamp, and of hands and means (in this ſo populous and great trading Nation) ſo inexpreſſibly endleſs, as muſt indiſputably admit them by a preſuppoſed accord of both, to be interpreted in an eaſy capacity, to act unto effect above the Level of ſuch a work as this: eſpecially being *Engliſh* ſpirits (who by their high Tranſactions almoſt of all kinds throughout the world) are deemed to admit nothing difficult but by them with Ceremony to be brought to paſs, ſo it be but fit in Prudence to be undertaken, and the more the difficulty and greatneſs of the Work is apparent, let it be carried on with the greater Chearfulneſs, as to the more atchievement of our Honours in the Succeſs

thereof, after the manner of *Atlas* who is decypher'd to have carried the World upon his Shoulders, without groaning

Over and besides the Variety of great and constant charges which are to be expended in & about the effecting and continued fruition of this great Improvement, there will be pre-required a Purchase of, or other agreement for such Mills, and Parcels of Grounds, from the Inheritours of them, or from such as have the same by Lease, or from both; which intervenes in and upon such Channels or Lands, which are so practicably capable amongst us (by the Industry of man for good purpose) of being cut, opened, cleansed and otherwise fitted for Navigation, and shall best accommodate such design: The Banks of such Channels where there must be Occasion for Towing of the Vessels to be Navigated with, by the Assistance of Horse or man, being so necessary an appurtenant to be made use of, together with such River to be made Navigable: (as well as the frequent Occasions, which may be expected to be had of the same Banks, for the Cleansing and other amendments of such Rivers) must obliege to agreements for the same, wherein let the Seller departing from his right at anothers Will, ever have advantage. All which sort of Purchases or Agreements (in every several place where the same are to be made)) and Sasses therein to be erected, for the raising of the Water to a convenient depth for the Vessels to ride in, by the particular skill and prudence of knowing Surveyors in such works, be directed unto, after a strict Geometrical Survey of the several intervening Platforms of grounds in and about every such several place where such work is to be wrought, and Sasses to be planted, as the Nature of the place which requires such purchase for such Improvement shall direct such Artist unto, ever regarding (though the Circlings, windings of such Grafts for Rivers, made, or to be amended for Vessels to sail in, shall thereby much enlarge the worke in measure.)

I. As well to avoid the Injuring of the Neighboring Countryes by the overflowing of the Banks, where such work is wrought, as to wave the insupportable charge of fitting a passage through craggy Rocks for a shorter cut, as a serviceable border, occasionally to be made use of for man or beast to tow in—— And

II. To make or appoint such graft (as designed for the safe

ſafe and firm erecting or planting of each ſuch Sluce or Saſs in, as ſhall by ſuch ſurveying Artiſt be judged requiſite for ſuch work) to be winding in the form of a Bow. Such a River as is ſo to be taught the Uſe of Navigation, for diverſion of the force of the Main ſtream, from off ſuch Saſs, in avoidance of rending up or breaking of the ſame, which by the Natural force and current of the Stream, eſpecially in floods and Storms (if ſuch Saſſes ſhould be planted upon the moſt current Streams of the River, which they are to be inſervient unto) muſt reaſonably be expected —— And no other means, ever was, or is imaginable, for the fitting of a River of great Streams in many places, oft times too ſhallow for the draught of a Veſſel of Convenient Burthen, for good Uſe upon ſuch River, or for the apting of one River unto another, by cutting a graft betwixt two Rivers, at ſuch a Level as the Water of the one ſhal run into the other, ſo as a Veſſel may ſail, or be towed from one of the Rivers unto the other at arbitrement, except by ſuch Saſſes penning up, and thereby raiſing the water for uſe as by ſo many ſtairs or ſteps as is or may be wanting to become of convenient depth for the tranſport of Veſſels of ſo good Burthen, as may be to good purpoſe, fit for the producing of a Comerce by Navigation between any one Country of this Iſland and another.

Nor can the pulling up of Corn Mills (the onely Obſtruction, as being of a more publick ſervice then any other intervening good) be a ſufficient pretence to impede this Enterprize of making ſuch Rivers Navigable, as by conſideration of their Service to the Country, ſhall be found fit to made Navigable; ſeing that the Neceſſary Office of ſuch Mills may be performed at an eaſyer charge by Horſe-mills, by Wind-mills, or by Mills termed River-Mills, which in the *Low-Countryes*, and ſome parts of *Italy* are familiarly made uſe of in flat bottomed Boates, and thereby conveyed to Service (as the Occaſion of the Country may require) from one place unto another, which by reaſon of the Number and certainty of the Gryſt of Corn at appointed times to be had, wrought by the Water-mills now in uſe amongſt us; the advantage of which, is little more then a ſlight kind of *Ceremony* to man, an unfit Conſideration to lay aſide a real Improvement, as is this, of making apt Rivers in the apteſt places Navigable, and the Right of Soaks belonging to the Inheritours

of such Mills, as are so to be removed, are preadmitted to be retaliated for with good advantage to the Owner: but if this great Consumption of Timber be still permitted, there will not be enough to build either Water-mill or Wind-mill.

Yet, if any Owner be of so *morose* a Spirit, as to bid a Contradiction to the worlds and his own advantage, for his supposed unquestionable Vineyards sake, Its reasonably to be understood a duty incumbent upon His Majesty and Parlament, in such a case as Guardian to all Subjects goods and rights (as his Catholique Majesty in his Dominions of *Spain*, takes charge of all the Substance, and affaires of persons as are *Lunatiques*, governing their affairs *fine fine, modo & mensura*) that His Majesty and Parlament may dispose of the Estates of such persons (*will* they *nill* they) as to the *Publique*, shall seem best, without the concurrence of them.

In every place where the making of a River Navigable is designed to be enterprized, there is seriously to be considered what improvement may most probably accrew to the Land or any part of the Land thereby, *viz.* what charge may be saved, and what profit may by means thereof be had, which else could not be had, and a conference of this must be had, with what must be expended for effecting of such work, a computation sufficiently easy, unto abundant satisfaction to be made, for where amongst other services, such Rivers shall become subservient to some certain great Staple Trade, the Profit both to King and Subject being certain to be alwayes great (admitting the ordinary Providence of Heavens influence in the preserving of such Trade) And the the charge being but once, and that to be probably effected by one years profit, accrewable by such River, or well near thereabouts, reasonably to be computed by the necessary and great Trade of Coales, *&c.* unquestionably to be concluded upon, to be had upon such River by the Countryes great want of fuell bordering upon the same, all other Trades to be had upon such Rivers bearing their proper share, in the assistance of it, and considering further, that such works are alwayes to be wrought, where the grounds (which are to be so cut through) are to be found, or admitted to be so favorable in their Scite and nature to the Work, as that of themselves they much lean to the doing of the same; whereby

by the charge muſt be eſteemed moderate and ſuch River already had or to be made at, or well nigh, ſo moderate rates muſt, *primo intuitu*, be deemed properly worthy to be ſo fitted for Navigation, all other conſtant immergent charges of preſerving the River, once made ſo Navigable being too Inconſiderable to out-weigh the Scales in this caſe. 363

By this *Lesbian* Rule, I have ſurveyed, examined, and found divers Rivers within this Iſland in apt places for ſuch Trade practicable, with eaſe to be made thus Navig ble, and more particularly,

Firſt, That the River *Avon* of *Briſtol*, may be, by the preſcribed means of Art, charge and power upon the premiſed, prudent Ballance of Charge and Profit, be made Navigable from *Briſtol* to *Calne*, or to *Mamsbury* in *Wiltſhire*, and by cutting a Graft of five Miles, or thereabout, in length onely, through a ground which I found favorable by Nature, for ſuch purpoſe: the ſame River may take its Journey for the ſame uſe, (planting Saſſes alſo aptly upon the ſame) from *Mamesbury* to *Leſhlade* in *Oxfordſhire*, and there ſalute the River *Iſis* already Navigable, which ſo delivers it ſelf into the *Thames*, and bring the Trade of *Ireland*, the Rich fruits of *Cornwall*, *Devon* and *Sommerſet*, *Mendip Hills*, and *Wales*, and any other Portage, as well as of the Intervening Countryes, to the Cittyes of *Briſtol* and *London*, mentioned; and back again at will; by ſo much a ſhorter and ſafer cut; (as will appear more plainly by divers Maps, and other printed Papers, ſet forth at my own particular charge) and ſo much leſſer charge of Portage then elſe can be (one boat upon the ſame carrying as much as an hundred horſe) as muſt exceedingly abate the price, by leſſening the Charges of the Commodities of the ſame: and more particularly bring an Immeaſurable Trade of *Coales* from *Wales* and *Briſtol*, to the imploying of many thouſand Subjects in Mines, and alſo about the River, and the great advance of many a man by Merchandize, in and about the ſame; to the incredible Relief of the bordering Countryes of *Wiltſhire*, *Gloceſterſhire*, *Oxfordſhire*, and others lying on or near the ſame, as far as His Majeſty ſhall from time to time think meet in prudence to admit of; ever regarding the Preſerve

ſerve of His *Newcaſtle* Trade, the great ſupport of His Navy, which by the Supplyes of the aforementioned Countryes from *Briſtol* will not be endamaged: This propoſed Trade of *Coal*, not claſhing with the *Newcaſtle* Trade at all; ſo much more may His Majſties Coffers be enriched, then now they are, as well as by other Impoſts; by an Impoſt upon this Trade of Coales in the River *Avon* of *Briſtol* becoming Navigable, as is ſet forth, Inſenſible to thoſe Countryes, which are to be ſupplyed by the ſame, being they now pay thrice the rates for *Coal* to what the ſame may be afforded at by the Merchant, notwithſtanding his diſcharge of ſuch great Impoſt upon the ſame: and all other Commodities may be commerced in, upon this River, at half the Charge of what is paid for Land carriage or Portage, much to the Subjects eaſe and happineſs, which alſo may afford a very conſiderable Return to His Majeſty for the ſame, to be ſquared out, when the River ſhall become thus Navigable, as His Majeſty and Parlament (by Ballance of the Gain of Portage in each particular Commodity to be thereby had above what is now had) ſhall deem moſt juſt to both. And its worthy to be conſidered, how great a relief of Coal, in times of Warr at Sea, the City of *LONDON* may enjoy by this Atchievement, Let the Cities incredible want of Coal, near to the hazard of an Inſurrection, in our late Conflicts with the *Dutch*, and the great Ingredient, the Conſideration of this want was of, to the Neceſſary contracting of that Speedy Peace with them, convince us: Were my Adviſes of Sufficient Intereſt to take place at the Helme, no earlier enterprize ſhould be made, then this of making Rivers Navigable within this Iſland, as is above ſet forth, in Order to a ſecure Relief of this moſt famous City of *LONDON*, with all ſorts of Commodities, as, Timber, Stone, Lead, Iron, and all other Materials for re-edifying the ſame, (by a prudent Care) upon Occaſion of ſuch diſtreſs to be had, or threatned, by War or otherwiſe. And its well worthy to be conſidered of how great Relief this may be, by the Portage of an Army, as is above ſet forth.

Secondly, I find, that after the like manner to the like Traffique of Commodities (when thoſe tempeſtuous Seas, for want of convenient Harbours upon the Borders of *Lincolnſhire*, bids denyal to

to all ſafe Trade there, to the like great Imployment of Miners, and other men, and great enrichment of many a Merchant there, by: the like relief to His Majeſty and Subjects, in the charge of Portage, as Occaſion ſhall require an abatement of rates through divers Countryes thereby, and the like Return of Impoſt upon all Commodities, with the like amicable reſpect, by an equal ballance of what each Commodity will bear, by conſent of Parlament, to be ſetled upon His Majeſty for the ſame; as the River *Avon* of *Briſtol*: may the River *Waveney* be made Navigable, by cutting of a convenient graft near *Loppam* Bridge, ſufficient for Navigation, leſs then three Miles (through grounds, in their own Nature favorable for ſuch an Enterprize) into *Little Ouſe* which carryes it ſelf unto *Linn* in *Norfolk*, and by Planting Saſſes upon thoſe Rivers, as ſhall be adviſed by the preſcribed directions: any Commodities (as occaſion ſhall require) may be hereby conveyed to the Uſe of *Suffolk*, and *Norfolk*. Theſe two Rivers ſo dividing thoſe two Countries from *Yarmouth* unto *Linn*, whence there is an open paſſage already had to *Boſton*, with ſuch Rivolets ſhooting out in Armes to *Cambridge*, the Iſle of *Ely* and other places, provided by Nature to the convenient ſupply of thoſe parts, ſo as any thing may by that means be tranſported unto *Boſton*, and thence up the River *Witham* unto the City of *Lincoln*, whence by opening the paſſage (by neglect ſhut up) betwixt that City and *York* Sea, upon *Trent*, heretofore made Navigable, as *Cambden* reports, by our *Henry* the *firſt*, in a tender of his Subjects eaſe, in his Progreſſes of State which he firſt begun) a like tranſport, to the immediate great ſervice of the Counties of *Nottingham*, *Lincoln* and *Derby*, may any Commodities be tranſported there, and thence for *York*, and all the Countryes adjacent to thoſe Mediterranean paſſages, as the Maps and Hiſtories of them, (ſhewing all theſe Intervening Rivers, then by Nature free for Navigation, unto *York*, and other neighboring parts) will beſt ſet forth, in which perhaps a King hath ſayled. This way may be an interchange of all reliefs which any of the neighbouring Counties may ſupply each other with, betwixt *York* and *Yarmouth*, and Armies may occaſionally, with incredible advantage to themſelves and Country (as was ſaid to be done by the ſame Prince) be conveyed upon the ſame.

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But the Country then being Strangers to the Trade of Coal, a Commodity, then and for ſeveral Generations fully prevented by the ready ſupply of Wood for fewel, and all other Traffique of theſe Countries being much ſhort of what now the ſame is; This New-cut River of ſeven miles betwixt *Lincolne* and *Torkſea*, for want of *Uſe* became ſludg'd up and is grown into a Paſture, which the onely Trade of *Coales* (which it might be accommodated with) from *Nottingham-ſhire*, *Derby-ſhire* or *Yorkſhire*, were it now Navigable as then it was, as well to the great relief of all the aforemen.ioned Countryes as the enrichment of Your Majeſtie would now preſerve; And let theſe obſervations made on theſe two Rivers induce unto an Inqueſt, and Ballance of other Rivers within this Iſland: and bring thoſe Parts into a flouriſhing Condition, all ſorts of Commodities from the *Eaſtern* parts of the World being equally diſtributed to the *North* and *Eaſt* of *England*, (as by the former deſign of opening the Rivers between *London* and *Briſtol*, to the *Weſtern* parts is exemplifi'd) in and from abroad communicated to the *Weſt* and *South*.

Market-

Market-Townes

Standing near, or upon,

The LITTLE OWSE AND WAVENEY.

Brandon
Thetford
Dis
Harleston
Bungey
Beckles.
Leſtof
Yarmouth

Other *Market-Towns* within 10 Miles of theſe RIVERS.

From *Beckles* to *Yarmouth*, 9 miles.
From *Beckles* to *Leſtof*, 8 miles.
From *Bungey* to *Norwich*, 10 miles.
From *Yarmouth* to Norwich already a Navigable paſſage.
From *Harleſtone* to *Windham*, 9 miles.
From *Dis* to *Windham*, 10 miles.
From *Loppham* to *Higham*, 10 miles.
From *Loppham* to *Harling*, 3 miles.
From *Loppham* to *Bucknam*, 5 miles.
From *Thetford* to *Watton*, 9 miles.

From *Brandon* to *Swafham*, 10 miles.
From *Beckles* to *Sowld*, 9 miles.
From *Beckles* to *Harleſton*, 7 miles.
From *Bungey* to *Harleſton*, 7 miles.
From *Harleſton* to *Framlingham*, 8 miles.
From *Dis* to *Buddesdall*, 3 miles.
From *Dis* to *Debenham*, 9 miles.
From *Dis* to *Aye*, 3 miles.
From *Loppham* to *VVolpet*, 9 miles.
From *Loppham* to *Stow*, 9 miles.
From *Loppham* to *Needham*, 10 miles.
From *Loppham* to *Mildnal*, 6 miles.

All theſe Market Towns, beſides Innumerable Villages, with many Gentlemens Houſes of Note, would ſo make uſe of theſe Two Rivers, that a Marvelous Trade, would be driven upon them, and ſailing out of the *Little Owſe*, the Boats enter into the *Great Owſe*, which already is Navigable to *Lynne*, and to all the Towns within the Iſle of *Ely*, even up to *Cambridg*. Deſignes worthy to be brought forth under the happy Government and Protection of Your Majeſty.

FINIS.